



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

## BOOK REVIEWS

*Psychologie und Verkehrswesen.* By HANS A. MARTENS. (Heft 10 of *Schriften zur Psychologie der Berufseignung und des Wirtschaftslebens.*) Edited by OTTO LIPMANN and WILLIAM STERN, 1919. 14 p.

The author discusses first the general value of psychological principles in the training and selection of traffic personnel, in the certification of professional chauffeurs, and the licensing of private automobilists. He then takes up, in survey fashion, the psychological factors of the signal system. He enumerates the psychological requirements of good signals and states the problems involved in learning and reacting to them and in avoiding accidents and especially collision with pedestrians. His main object is to show that like all other phases of economic life, transportation and traffic need the co-operation of consulting psychological experts in solving all those problems which involve the human element as an important constituent. L. R. G.

*Die Psychische Eignung der Funkentelegraphisten.* By OTTO LIPMANN. (Heft 9 of the *Schriften zur Psychologie der Berufseignung und des Wirtschaftslebens.*) Edited by OTTO LIPMANN and WILLIAM STERN, 1919. 40 p.

The first part of this article deals with the analysis of the mental functions of wireless telegraphers. Both receiving and sending wireless messages require good memory and ability to learn quickly. In sending messages, accuracy, speed, and certainty in movements are essential, but the sender is usually not limited in speed nor exposed to distractions, which two factors make the receiving a much more difficult task. Since the signals to be received and recorded are faint tones from 500 to 1,000 vibrations, the listener must be able to differentiate accurately both pitch and intensive differences; he must have a good memory for pitch in order to identify thereby the stations communicating with him; and he must be able to recognize different rhythms of sound signals and the changes they undergo when their speed is altered. He will be the more efficient the less he needs to translate these sounds into visual or motor terms. Subjective types of receivers who interpret what they hear are less valuable, at least from the militaristic point of view, than the objective type who merely writes down what he hears. The process of recording involves a division of attention between hearing the present sound and simultaneous writing what had just been heard. Finally, the receiver must be able to disregard a large number of distracting and conflicting noises from other stations and confine his attention exclusively to the particular sender with whom he is trying to communicate. These auditory disturbances offer the greatest difficulty to the beginner in wireless telegraphy and prove sometimes too much for him.

In the second part the author describes a complex method of testing beginners in wireless telegraphy for the purpose of determining their fitness for such work. The five letters, k, m, r, s, and v, of the Morse

alphabet were employed as stimuli, at a constant pitch of 1,000 vs., presented automatically by a special sending apparatus which transmitted the sounds through a number of individual telephone receivers to a group of learners. The stimuli were given in successive series in different orders, at four different degrees of intensity, and at seven different rates. In some of the series disturbing secondary sounds of 600, 700, and 900 vs. were introduced. Each observer wrote down what letters he heard, as nearly as possible in the order in which he heard them, and he was scored on the basis of the number of correct replies.

The last part gives the results of these experiments with seventy-one observers and describes also the methods of computing the data from various points of view, in order to take account of practice, fatigue, and distractibility. The index of efficiency for a given observer is based upon the combined results of all the series, which had previously been weighed. Two methods of weighing the series are discussed and compared, and a positive correlation coefficient of .8264 with a P. E. of .02656 is found for them. Unfortunately the experimental results from these 71 observers could not be compared with the outcome of the training which they underwent or with their success in actual service, although another investigator, who has also used this method as part of a much more extensive study, is reported to have had good results with it.

L. R. G.